IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Christopher L. Hill, et al.
Application No.:   09/995,206
Filed: 11/27/01
For: **POWER SUPPLY OUTPUT CONTROL APPARATUS AND METHOD**

CERTIFICATE OF EFS SUBMISSION (37 C.F.R. § 1.8(a)(i)(1)(C))

I hereby certify that on May 20, 2009 the following correspondence:

Name of Paper: Request for Refund (Improper Charge of Deposit Account)
                Copy of Deposit Account Statement for May, 2009
                Copy of PTO-2022 form from PAIR website
                Copy of claims as filed in original application SN 09/995,206 on 11/27/01
Number of Pages: 10
Fees: None

is being submitted to the Patent and Trademark Office via the Office Electronic Filing System in accordance with § 1.6(a)(4) at _____ local time.

Signature

Telephone Number: <u>405-232-0621</u>   <u>Diana C. Anderson</u>
                                             Type or print name of person certifying

NOTE: _It is advisable to keep a copy of certification of EFS-Web transmission § 1.8), including the list of papers submitted, to establish the local time of the submissions if such evidence is needed_

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Christopher L. Hill, Garry E. Korbel**
Assignee: **SEAGATE TECHNOLOGY LLC**
Application No.:   **09/995,206**   Group No.: **2837**
Filed: **November 27, 2001**   Examiner: **Erick Glass**

Mail Stop 16
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P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR REFUND
(IMPROPER CHARGE OF DEPOSIT ACCOUNT)

I.   REFUND REQUEST

This is a request for a refund, with respect to the charge to Deposit Account 06-0540, shown on the statement dated May 20, 2009, for the above-identified application.

A copy of the monthly statement, in which the error referred to occurs, accompanies this request.

II.   FEES CHARGED FOR WHICH REFUND REQUESTED

<div align="right">

**AMOUNT OF
REFUND
REQUESTED**

</div>

Excess claims $376.00

TOTAL REFUND REQUESTED $376.00

III.   EXPLANATION OF WHY CONTESTED CHARGE IS IN ERROR

On April 30, 2009, an amendment was filed in the referenced case with 24 total claims (20 dependent and 4 independent). On May 21, 2009 our deposit account was charged for one additional independent claim and 3 additional dependent claims.

As you will note, if you review the USPTO application records on PAIR, you will find that the original application was filed with and fees paid for 30 total claims (24 dependent and 6 independent). We have attached copies from the PAIR website of the form PTO-2022 as well as Claims as filed in the original application filed November 27, 2001, both indicating 30 total claims filed, with 24 dependent and 6 independent.

We believe our deposit account has been improperly charged and therefore request reimbursement of the improperly charged fees totaling $376.00.
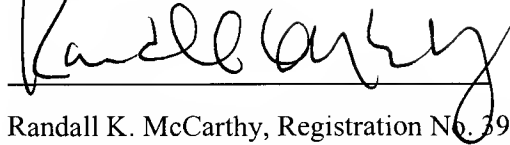
IV. MANNER OF REFUND

Please make refund by crediting Deposit Account No.: 06-0540.

Date: 5/20/09

Respectfully submitted,

Randall K. McCarthy, Registration No. 39,297
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Customer No. 33900

United States
Patent and
Trademark Office

Deposit Account Statement

Requested Statement Month:	May 2009
Deposit Account Number:	060540
Name:	FELLERS SNIDER BLANKENSHIP BAILEY & TIPPENS
Attention:	DENNIS D BROWN
Street Address 1:	THE KENNEDY BUILDING
Street Address 2:	321 S. BOSTON, SUITE 800
City:	TULSA
State:	OK
Zip:	74103-3318
Country:	UNITED STATES

DATE	SEQ	POSTING REF TXT	ATTORNEY DOCKET NBR	FEE CODE	AMT	BAL
05/21	2	09995206	STL10005	1202	$156.00	$2,991.50
05/21	1	09995206	STL10005	1201	$220.00	$2,771.50

START BALANCE	SUM OF CHARGES	SUM OF REPLENISH	END BALANCE
$3,147.50	$376.00	$.00	$2,771.50

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CLAIMS ONLY

SERIAL NO.	FILING DATE
09905206	11-22-01

APPLICANT(S)

CLAIMS

	AS FILED		AFTER 1st AMENDMENT		AFTER 2nd AMENDMENT				*		*		*	
	IND.	DEP.	IND.	DEP.	IND.	DEP.			IND.	DEP.	IND.	DEP.	IND.	DEP.
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48								98						
49								99						
50								100						
TOTAL IND.	6							TOTAL IND.						
TOTAL DEP.	24							TOTAL DEP.						
TOTAL CLAIMS	30							TOTAL CLAIMS						

*MAY BE USED FOR ADDITIONAL CLAIMS OR ADMENDMENTS

Claims

What is claimed is:

1.   A method for controlling the power of a motor, comprising the steps of:

   (a)   applying power to a spindle motor to engage a start-up sequence;

   (b)   monitoring the amount of current applied to the spindle motor during the start-up sequence;

   (c)   obtaining a control voltage proportional to the motor current; and

   (d)   disabling the start-up sequence if the control voltage exceeds a predetermined voltage threshold.

2.   The method of claim 1 wherein the predetermined voltage threshold is obtained from a digital-to-analog converter.

3.   The method of claim 2 wherein the predetermined voltage threshold corresponds to a preprogrammed start-up disc profile.

4.   The method of claim 1 wherein step (c) further comprises obtaining the control voltage by integrating a voltage across a current sensing resistor.

5.   The method of claim 1 wherein step (a) further comprises the steps of:

   (a)(i)   enabling the calibrating of the predetermined voltage threshold.

6.   The method of claim 5, wherein step (a)(i) further comprises the steps of:

(a)(ii) applying a signal from a digital-to-analog converter (DAC) to the input of a comparator;

(a)(iii) applying a finite specific reference signal to simulate the monitoring of the current applied to the spindle motor; and

(a)(iv) adjusting the signal from the DAC to compensate for offsets of the circuitry.

7.   The method of claim 1 further comprising the step of:

(e)   waiting a fixed period of time;

(f)   re-enabling power to the motor; and

(g)   repeating steps (b) – (g).

8.   A method for controlling the current drawn from a power supply in a computer system, comprising the steps of:

(a)   applying power to a drive spindle motor to engage a start-up sequence; and

(b)   monitoring the amount of current applied to the spindle motor during the start-up sequence.

(c)   obtaining a control voltage proportional to the motor voltage;

(d)   disabling the start-up sequence if the control voltage exceeds a predetermined voltage threshold.

9.   The method of claim 8 wherein the predetermined voltage threshold is obtained from a digital-to-analog converter.

10.   The method of claim 9 wherein the predetermined voltage threshold corresponds to a preprogrammed start-up disc profile.

11.   The method of claim 8 wherein step (c) further comprises obtaining the control voltage by integrating a voltage across a current sensing resistor.

12.   The method of claim 8 further comprising the step of:
        (e)   waiting a fixed period of time;
        (f)   re-enabling power to the motor; and
        (g)   repeating steps (b) – (g).

13.   A data storage device , comprising:
        at least one spindle motor;
        a power supply electrically connected to the spindle motor; and
        a spindle motor controller, wherein the spindle motor controller
        measures and limits an amount of power from the power supply that is
        utilized by the spindle motor during a spindle motor start-up sequence.

14.   The data storage device of claim 13 wherein the spindle motor controller further comprises:
        a driver control function programmed into the motor controller which
        disables a spindle motor driver for a fixed period of time.

15.   The data storage device of claim 13 further consisting of:
        a data storage device controller, operably connected to the spindle
        motor controller, wherein the data storage device controller can initiate
        or deactivate the spindle motor start-up sequence.

16.   The data storage device of claim 14 wherein the driver control function is enabled when a signal proportional to a current applied to the spindle motor exceeds a predetermined threshold.

17.   The data storage device of claim 16 wherein the predetermined threshold is a programmable voltage from a digital-to-analog converter.

18.   A data storage device, comprising:
>   at least one spindle motor;
>   a power supply electrically connected to the spindle motor; and
>   means for monitoring power applied to the spindle motor during a start-up sequence.

19.   The data storage device of claim 18, wherein the means for monitoring power further comprises:
>   a driver control function for disabling the motor drivers for a fixed period of time.

20.   The data storage device of claim 19, wherein the driver control function further comprises:
>   a disable feature which initiates when a signal proportional to the spindle motor voltage exceeds a predetermined threshold.

21.   A method for controlling the power of a motor, comprising the steps of:
>   (a)   applying power to a motor to engage a run sequence; and
>   (b)   monitoring the amount of current applied to the motor during the run sequence;
>   (c)   obtaining a control voltage proportional to the motor current;

(d) disabling the run sequence if the control voltage exceeds a predetermined voltage threshold.

22. The method of claim 21 wherein the predetermined voltage threshold is obtained from a digital-to-analog converter.

23. The method of claim 22 wherein the predetermined voltage threshold corresponds to a preprogrammed run disc profile.

24. The method of claim 21 wherein step (c) further comprises obtaining the control voltage by integrating a voltage across a current sensing resistor.

25. The method of claim 21 further comprising the step of:
    (e) waiting a fixed period of time;
    (f) re-enabling power to the motor; and
    (g) repeating steps (b) – (g).

26. A data storage device , comprising:
    at least one spindle motor;
    a power supply electrically connected to the spindle motor; and
    a spindle motor controller, wherein the spindle motor controller
    measures and limits an amount of power from the power supply that is
    utilized by the spindle motor during a spindle motor run sequence.

27. The data storage device of claim 26 wherein the spindle motor controller further comprises:
    a driver control function programmed into the motor controller which
    disables a spindle motor driver for a fixed period of time.

28.   The data storage device of claim 26 further consisting of:

a data storage device controller, operably connected to the spindle

motor controller, wherein the data storage device controller can initiate

or deactivate the spindle motor run sequence.

29.   The data storage device of claim 27 wherein the driver control function

is enabled when a signal proportional to a current applied to the spindle

motor exceeds a predetermined threshold.

30.   The data storage device of claim 29 wherein the predetermined

threshold is a programmable voltage from a digital-to-analog converter.